

What is claimed is:

1. A method for determining a variable describing the speed ( $V_{\text{wheelDef}}$ ) of at least one driven wheel (1, 2, 3, 4) of a motor vehicle, in which the variables describing the respective wheel speeds ( $V_{\text{wheel}i}$ ) for the remaining driven wheels of the motor vehicle and a variable describing the output rpm ( $n_{\text{output}}$ ) of a transmission (5) of the motor vehicle are determined, wherein the variable describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) is determined as a function of the variables which describe the respective wheel speeds ( $V_{\text{wheel}i}$ ) of the remaining driven wheels, and as a function of the variable which describes the transmission output rpm ( $n_{\text{output}}$ ).

2. The method as recited in Claim 1, wherein a variable specific to the wheel plane and describing the output speed ( $V_{\text{output}}$ ) is determined as a function of the transmission output rpm ( $n_{\text{output}}$ ), and the variable describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) is determined as a function of the variables which describe the respective wheel speeds ( $V_{\text{wheel}i}$ ) of the remaining driven wheels, and as a function of the variable which describes the output speed ( $V_{\text{output}}$ ).

3. The method as recited in Claim 2, wherein the variable specific to the wheel plane and describing the output speed ( $V_{\text{output}}$ ) is determined according to the equation

$$V_{\text{output}} = \frac{\pi}{30} \cdot \frac{R_{\text{wheel}}}{I_{\text{Diff}}} \cdot n_{\text{output}}$$

$R_{\text{wheel}}$  being the radius of the driven wheels and  $I_{\text{Diff}}$  being the effective differential ratio(s).

4. The method as recited in Claim 2 or 3, wherein in the case of a motor vehicle having all-wheel drive (AWD), the variable

describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) is determined according to the equation

$$V_{\text{wheelDef}} = 4 \cdot V_{\text{output}} - \sum_{i=1}^3 V_{\text{wheel}i}$$

5. The method as recited in Claim 2 or 3, wherein in the case of a motor vehicle having front-wheel drive (FWD) or having rear-wheel drive (RWD), the variable describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) is determined according to the equation

$$V_{\text{wheelDef}} = 2 \cdot V_{\text{output}} - V_{\text{wheel}}$$

$V_{\text{wheel}}$  being the wheel speed of the other driven wheel.

6. A device for determining a variable describing the speed ( $V_{\text{wheelDef}}$ ) of at least one driven wheel (1, 2, 3, 4) of a motor vehicle, the device having means (9, 10, 11, 12) for determining variables for the remaining driven wheels of the motor vehicle which describe the respective wheel speeds ( $V_{\text{wheel}i}$ ), and means (13) for determining a variable which describes the output rpm ( $n_{\text{output}}$ ) of a transmission (5) of the motor vehicle, wherein the device determines the variable describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) as a function of the variables which describe the respective wheel speeds ( $V_{\text{wheel}i}$ ) of the remaining driven wheels, and as a function of the variable which describes the transmission output rpm ( $n_{\text{output}}$ ).

7. The device as recited in Claim 6, wherein the device has means for carrying out a method according to one of Claims 2 through 5.

8. A control unit (14) for a traction control system or a vehicle-dynamics control system of a motor vehicle which, to control the drive slip and/or the vehicle dynamics, determines

a variable describing the speed ( $V_{\text{wheelDef}}$ ) of at least one driven wheel (1, 2, 3, 4) of the motor vehicle; variables describing the respective wheel speeds ( $V_{\text{wheel}i}$ ) for the remaining driven wheels of the motor vehicle and a variable describing the output rpm ( $n_{\text{output}}$ ) of a transmission (5) of the motor vehicle being available to the control unit (14), wherein the control unit (14) determines the variable describing the speed ( $V_{\text{wheelDef}}$ ) for the at least one driven wheel (1, 2, 3, 4) as a function of the variables which describe the respective wheel speeds ( $V_{\text{wheel}i}$ ) of the remaining driven wheels and as a function of the variable which describes the transmission output rpm ( $n_{\text{output}}$ ).

9. The control unit (14) as recited in Claim 8, wherein means for carrying out a method according to one of Claims 2 through 5 are implemented in the control unit (14).

10. A memory element (16), particularly a read-only memory, a random-access memory or a flash memory, for a control unit (14) of a traction control system or a vehicle-dynamics control system of a motor vehicle, on which a computer program is stored that is executable on a computing element, particularly on a microprocessor (17), and is suitable for carrying out a method according to one of Claims 1 through 5.

11. A computer program, wherein the computer program is suitable for carrying out a method as defined in one of Claims 1 through 5 when it is executed on a computing element, in particular on a microprocessor (17).

12. The computer program as defined in Claim 11, wherein the computer program is stored on a memory element (16), in particular on a flash memory.

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